

BOSSLASER™

Recommended Engraving and Cutting Settings for 40W Laser

This is just a starting point - many different settings can be used for different effects. Scan gap is very important when engraving for depth and detail of engraving. To increase productivity, increase speed, power and adjust scan gap proportionately.

| Materials | Power | Speed | DPI Scan Gap | Notes |
|-----------|-------|-------|-----------------|-------|
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| | Watt | Power | Speed mm/sec | Scan Gap DPI | NOTES | |
|----------------------|------|-------|-----------------|-----------------|--|------|
| Acrylic | 40 | 75 | 400 | 0.05 | lower speed or multiple passes to increase depth | Scan |
| Anodized Aluminum | 40 | 75 | 400 | 0.07 | | Scan |
| Brick | 40 | 85 | 10 | 0.10 | engrave or cut with lens slightly out of focus to produce glass effect | Scan |
| Cardboard Matt Board | 40 | 75 | 400 | 0.10 | | Scan |
| Ceramic | 40 | 100 | 200 | 0.05 | | Scan |
| Glass | 40 | 100 | 200 | 0.05 | | Scan |
| Laserable Plastic | 40 | 50 | 400 | 0.05 | on plastics with a white core, you can run the engraving again at a low speed to clean the dust. | Scan |
| Leather | 40 | 75 | 300 | 0.10 | | Scan |
| Marble, Granite | 40 | 100 | 200 | 0.05 | | Scan |
| MDF - 1/8" | 40 | 75 | 400 | 0.10 | use transfer tape to prevent scorch | Scan |
| Mirror Back Glass | 40 | 75 | 300 | 0.10 | | Scan |
| Painted Metal | 40 | 75 | 300 | 0.10 | | Scan |
| Paper | 40 | 20 | 400 | 0.10 | | Scan |
| Rubber Stamp | 40 | 75 | 300 | 0.10 | use grade engrave to achieve 3D stamp effect - set the angle | Scan |
| Sign Foam | 40 | 75 | 400 | 0.10 | | Scan |
| Wood | 40 | 100 | 200 | 0.10 | use transfer tape to prevent scorch | Scan |
| Acrylic - 3mm 1/8" | 40 | 100 | 5 | | | cut |
| Acrylic - 6mm 1/4" | 40 | 100 | 1 | | | cut |
| Acrylic - 12mm 1/2" | 40 | NR | | | | cut |
| Acrylic - 25mm 1" | 40 | NR | | | | cut |
| Cardboard Matt Board | 40 | 50 | 75 | | | cut |
| Laserable Plastic | 40 | 75 | 20 | | | cut |
| Leather | 40 | 75 | 10 | | | cut |
| MDF - 1/8" | 40 | 75 | 20 | | | cut |
| Paper | 40 | 50 | 400 | | increase speed first / decrease power if scorching | cut |
| Rubber Stamp | 40 | 75 | 10 | | | cut |
| Wood - 3mm 1/8" | 40 | 100 | 10 | | use transfer tape to prevent scorch | cut |
| Wood - 6mm 1/4" | 40 | 100 | 5 | | use transfer tape to prevent scorch | cut |
| Wood - 9mm 3/8" | 40 | 100 | 1 | | use transfer tape to prevent scorch | cut |
| Wood - 12mm 1/2" | 40 | NR | | | | cut |

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Recommended Engraving and Cutting Settings for 60W Laser

This is just a starting point - many different settings can be used for different effects. Scan gap is very important when engraving for depth and detail of engraving. To increase productivity, increase speed, power and adjust scan gap proportionately.

| Materials | Power | Speed | DPI Scan Gap | Notes |
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| | Watt | Power | Speed mm/sec | Scan Gap DPI | NOTES | |
|----------------------|------|-------|-----------------|-----------------|--|------|
| Acrylic | 60 | 50 | 400 | 0.05 | lower speed or multiple passes to increase depth | Scan |
| Anodized Aluminum | 60 | 50 | 400 | 0.07 | | Scan |
| Brick | 60 | 80 | 25 | 0.10 | engrave or cut with lens slightly out of focus to produce glass effect | Scan |
| Cardboard Matt Board | 60 | 50 | 400 | 0.10 | | Scan |
| Ceramic | 60 | 67 | 200 | 0.05 | | Scan |
| Glass | 60 | 67 | 200 | 0.05 | | Scan |
| Laserable Plastic | 60 | 35 | 400 | 0.05 | on plastics with a white core, you can run the engraving again at a low speed to clean the dust. | Scan |
| Leather | 60 | 50 | 300 | 0.10 | | Scan |
| Marble, Granite | 60 | 65 | 200 | 0.05 | | Scan |
| MDF - 1/8" | 60 | 50 | 400 | 0.10 | use transfer tape to prevent scorch | Scan |
| Mirror Back Glass | 60 | 50 | 300 | 0.10 | | Scan |
| Painted Metal | 60 | 50 | 300 | 0.10 | | Scan |
| Paper | 60 | 20 | 600 | 0.10 | | Scan |
| Rubber Stamp | 60 | 50 | 300 | 0.10 | use grade engrave to achieve 3D stamp effect - set the angle | Scan |
| Sign Foam | 60 | 50 | 400 | 0.10 | | Scan |
| Wood | 60 | 65 | 200 | 0.10 | use transfer tape to prevent scorch | Scan |
| Acrylic - 3mm 1/8" | 60 | 100 | 15 | | | cut |
| Acrylic - 6mm 1/4" | 60 | 100 | 5 | | | cut |
| Acrylic - 12mm 1/2" | 60 | 100 | 1 | | | cut |
| Acrylic - 25mm 1" | 60 | NR | | | | cut |
| Cardboard Matt Board | 60 | 50 | 120 | | | cut |
| Laserable Plastic | 60 | 50 | 20 | | | cut |
| Leather | 60 | 50 | 10 | | | cut |
| MDF - 1/8" | 60 | 50 | 20 | | | cut |
| Paper | 60 | 35 | 400 | | increase speed first / decrease power if scorching | cut |
| Rubber Stamp | 60 | 50 | 10 | | | cut |
| Wood - 3mm 1/8" | 60 | 100 | 20 | | use transfer tape to prevent scorch | cut |
| Wood - 6mm 1/4" | 60 | 100 | 10 | | use transfer tape to prevent scorch | cut |
| Wood - 9mm 3/8" | 60 | 100 | 5 | | use transfer tape to prevent scorch | cut |
| Wood - 12mm 1/2" | 60 | 100 | 1 | | use transfer tape to prevent scorch | cut |

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Recommended Engraving and Cutting Settings for 80W Laser

This is just a starting point - many different settings can be used for different effects. Scan gap is very important when engraving for depth and detail of engraving. To increase productivity, increase speed, power and adjust scan gap proportionately.

| Materials | Power | Speed | DPI Scan Gap | Notes |
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| | Watt | Power | Speed mm/sec | Scan Gap DPI | NOTES | |
|----------------------|------|-------|-----------------|-----------------|--|------|
| Acrylic | 80 | 40 | 400 | 0.05 | lower speed or multiple passes to increase depth | Scan |
| Anodized Aluminum | 80 | 40 | 400 | 0.07 | | Scan |
| Brick | 80 | 75 | 35 | 0.10 | engrave or cut with lens slightly out of focus to produce glass effect | Scan |
| Cardboard Matt Board | 80 | 40 | 400 | 0.10 | | Scan |
| Ceramic | 80 | 50 | 200 | 0.05 | | Scan |
| Glass | 80 | 50 | 200 | 0.05 | | Scan |
| Laserable Plastic | 80 | 25 | 400 | 0.05 | on plastics with a white core, you can run the engraving again at a low speed to clean the dust. | Scan |
| Leather | 80 | 40 | 300 | 0.10 | | Scan |
| Marble, Granite | 80 | 50 | 200 | 0.05 | | Scan |
| MDF - 1/8" | 80 | 40 | 400 | 0.10 | use transfer tape to prevent scorch | Scan |
| Mirror Back Glass | 80 | 40 | 300 | 0.10 | | Scan |
| Painted Metal | 80 | 40 | 300 | 0.10 | | Scan |
| Paper | 80 | 15 | 600 | 0.10 | | Scan |
| Rubber Stamp | 80 | 40 | 300 | 0.10 | use grade engrave to achieve 3D stamp effect - set the angle | Scan |
| Sign Foam | 80 | 40 | 400 | 0.10 | | Scan |
| Wood | 80 | 50 | 200 | 0.10 | use transfer tape to prevent scorch | Scan |
| Acrylic - 3mm 1/8" | 80 | 100 | 30 | | | cut |
| Acrylic - 6mm 1/4" | 80 | 100 | 12 | | | cut |
| Acrylic - 12mm 1/2" | 80 | 100 | 3 | | | cut |
| Acrylic - 25mm 1" | 80 | 100 | 0.5 | | | cut |
| Cardboard Matt Board | 80 | 50 | 130 | | | cut |
| Laserable Plastic | 80 | 40 | 20 | | | cut |
| Leather | 80 | 40 | 10 | | | cut |
| MDF - 1/8" | 80 | 40 | 20 | | | cut |
| Paper | 80 | 30 | 400 | | increase speed first / decrease power if scorching | cut |
| Rubber Stamp | 80 | 40 | 10 | | | cut |
| Wood - 3mm 1/8" | 80 | 100 | 40 | | use transfer tape to prevent scorch | cut |
| Wood - 6mm 1/4" | 80 | 100 | 15 | | use transfer tape to prevent scorch | cut |
| Wood - 9mm 3/8" | 80 | 100 | 8 | | use transfer tape to prevent scorch | cut |
| Wood - 12mm 1/2" | 80 | 100 | 3 | | use transfer tape to prevent scorch | cut |

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Recommended Engraving and Cutting Settings for 90W Laser

This is just a starting point - many different settings can be used for different effects. Scan gap is very important when engraving for depth and detail of engraving. To increase productivity, increase speed, power and adjust scan gap proportionately.

| Materials | Power | Speed | DPI Scan Gap | Notes |
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| | Watt | Power | Speed mm/sec | Scan Gap DPI | NOTES | |
|----------------------|------|-------|-----------------|-----------------|--|--------------|
| Acrylic | 90 | 35 | 400 | 0.05 | | Scan |
| Anodized Aluminum | 90 | 35 | 400 | 0.07 | | |
| Brick | 90 | 70 | 35 | 0.10 | engrave or cut with lens slightly out of focus to produce glass effect | Scan Scan |
| Cardboard Matt Board | 90 | 35 | 400 | 0.10 | | Scan |
| Ceramic | 90 | 45 | 200 | 0.05 | | Scan |
| Glass | 90 | 45 | 200 | 0.05 | | Scan |
| Laserable Plastic | 90 | 25 | 400 | 0.05 | on plastics with a white core, you can run the engraving again at a low speed to clean the dust. | Scan Scan |
| Leather | 90 | 35 | 300 | 0.10 | | Scan |
| Marble, Granite | 90 | 45 | 200 | 0.05 | | Scan |
| MDF - 1/8" | 90 | 35 | 400 | 0.10 | use transfer tape to prevent scorch | Scan |
| Mirror Back Glass | 90 | 35 | 300 | 0.10 | | Scan |
| Painted Metal | 90 | 35 | 300 | 0.10 | | Scan |
| Paper | 90 | 15 | 600 | 0.10 | | Scan |
| Rubber Stamp | 90 | 35 | 300 | 0.10 | use grade engrave to achieve 3D stamp effect - set the angle | Scan |
| Sign Foam | 90 | 35 | 400 | 0.10 | | Scan |
| Wood | 90 | 45 | 200 | 0.10 | use transfer tape to prevent scorch | Scan |
| Acrylic - 3mm 1/8" | 90 | 100 | 35 | | | cut |
| Acrylic - 6mm 1/4" | 90 | 100 | 15 | | | cut |
| Acrylic - 12mm 1/2" | 90 | 100 | 5 | | | cut |
| Acrylic - 25mm 1" | 90 | 100 | 0.7 | | | cut |
| Cardboard Matt Board | 90 | 50 | 150 | | | cut |
| Laserable Plastic | 90 | 35 | 20 | | | cut |
| Leather | 90 | 35 | 10 | | | cut |
| MDF - 1/8" | 90 | 35 | 20 | | | cut |
| Paper | 90 | 25 | 400 | | increase speed first / decrease power if scorching | cut |
| Rubber Stamp | 90 | 35 | 10 | | | cut |
| Wood - 3mm 1/8" | 90 | 100 | 45 | | use transfer tape to prevent scorch | cut |
| Wood - 3mm 1/8" | 90 | 100 | 45 | | | cut |
| Wood - 6mm 1/4" | 90 | 100 | 20 | | | cut |
| Wood - 9mm 3/8" | 90 | 100 | 10 | | | cut |
| Wood - 12mm 1/2" | 90 | 100 | 5 | | | cut |

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Recommended Engraving and Cutting Settings for 100W Laser

This is just a starting point - many different settings can be used for different effects. Scan gap is very important when engraving for depth and detail of engraving. To increase productivity, increase speed, power and adjust scan gap proportionately.

| | Watt | Power | Speed mm/sec | Scan Gap DPI | NOTES | |
|----------------------|------|-------|--------------|--------------|--|------|
| Acrylic | 100 | 30 | 400 | 0.05 | lower speed or multiple passes to increase depth | Scan |
| Anodized Aluminum | 100 | 35 | 400 | 0.07 | | Scan |
| Brick | 100 | 65 | 35 | 0.10 | engrave or cut with lens slightly out of focus to produce glass effect | Scan |
| Cardboard Matt Board | 100 | 30 | 400 | 0.10 | | Scan |
| Ceramic | 100 | 40 | 200 | 0.05 | | Scan |
| Glass | 100 | 40 | 200 | 0.05 | | Scan |
| Laserable Plastic | 100 | 25 | 400 | 0.05 | on plastics with a white core, you can run the engraving again at a low speed to clean the dust. | Scan |
| Leather | 100 | 30 | 300 | 0.10 | | Scan |
| Marble, Granite | 100 | 40 | 200 | 0.05 | | Scan |
| MDF - 1/8" | 100 | 30 | 400 | 0.10 | use transfer tape to prevent scorch | Scan |
| Mirror Back Glass | 100 | 30 | 300 | 0.10 | | Scan |
| Painted Metal | 100 | 30 | 300 | 0.10 | | Scan |
| Paper | 100 | NR | | | | Scan |
| Rubber Stamp | 100 | 30 | 300 | 0.10 | use grade engrave to achieve 3D stamp effect - set the angle | Scan |
| Sign Foam | 100 | 30 | 400 | 0.10 | | Scan |
| Wood | 100 | 40 | 200 | 0.10 | use transfer tape to prevent scorch | Scan |
| Acrylic - 3mm 1/8" | 100 | 100 | 40 | | | cut |
| Acrylic - 6mm 1/4" | 100 | 100 | 15 | | | cut |
| Acrylic - 12mm 1/2" | 100 | 100 | 5 | | | cut |
| Acrylic - 25mm 1" | 100 | 100 | 1 | | | cut |
| Cardboard Matt Board | 100 | 50 | 160 | | | cut |
| Laserable Plastic | 100 | 20 | 20 | | | cut |
| Leather | 100 | 30 | 10 | | | cut |
| MDF - 1/8" | 100 | 30 | 20 | | | cut |
| Paper | 100 | 20 | 400 | | increase speed first / decrease power if scorching | cut |
| Rubber Stamp | 100 | 30 | 10 | | | cut |
| Wood - 3mm 1/8" | 100 | 100 | 50 | | use transfer tape to prevent scorch | cut |
| Wood - 6mm 1/4" | 100 | 100 | 20 | | use transfer tape to prevent scorch | cut |
| Wood - 9mm 3/8" | 100 | 90 | 10 | | use transfer tape to prevent scorch | cut |
| Wood - 12mm 1/2" | 100 | 100 | 5 | | use transfer tape to prevent scorch | cut |

| Materials | Power | Speed | DPI Scan Gap | Notes |
|-----------|-------|-------|--------------|-------|
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Recommended Engraving and Cutting Settings for 130W Laser

This is just a starting point - many different settings can be used for different effects. Scan gap is very important when engraving for depth and detail of engraving. To increase productivity, increase speed, power and adjust scan gap proportionately.

| Materials | Power | Speed | DPI Scan Gap | Notes |
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| | Watt | Power | Speed mm/sec | Scan Gap DPI | NOTES | |
|----------------------|------|-------|--------------|--------------|--|------|
| Acrylic | 120 | 25 | 400 | 0.05 | lower speed or multiple passes to increase depth | Scan |
| Anodized Aluminum | 120 | 35 | 400 | 0.07 | | Scan |
| Brick | 120 | 50 | 35 | 0.10 | engrave or cut with lens slightly out of focus to produce glass effect | Scan |
| Cardboard Matt Board | 120 | 25 | 400 | 0.10 | | Scan |
| Ceramic | 120 | 35 | 200 | 0.05 | | Scan |
| Glass | 120 | 35 | 200 | 0.05 | | Scan |
| Laserable Plastic | 120 | 25 | 600 | 0.05 | on plastics with a white core, you can run the engraving again at a low speed to clean the dust. | Scan |
| Leather | 120 | 25 | 300 | 0.10 | | Scan |
| Marble, Granite | 120 | 35 | 200 | 0.05 | | Scan |
| MDF - 1/8" | 120 | 25 | 400 | 0.10 | use transfer tape to prevent scorch | Scan |
| Mirror Back Glass | 120 | 25 | 300 | 0.10 | | Scan |
| Painted Metal | 120 | 25 | 300 | 0.10 | | Scan |
| Paper | 120 | NR | | | | Scan |
| Rubber Stamp | 120 | 25 | 300 | 0.10 | use grade engrave to achieve 3D stamp effect - set the angle | Scan |
| Sign Foam | 120 | 25 | 400 | 0.10 | | Scan |
| Wood | 120 | 35 | 200 | 0.10 | use transfer tape to prevent scorch | Scan |
| Acrylic - 3mm 1/8" | 120 | 75 | 40 | | | cut |
| Acrylic - 6mm 1/4" | 120 | 75 | 15 | | | cut |
| Acrylic - 12mm 1/2" | 120 | 75 | 5 | | | cut |
| Acrylic - 25mm 1" | 120 | 75 | 0.7 | | | cut |
| Cardboard Matt Board | 120 | NR | | | | cut |
| Laserable Plastic | 120 | 25 | 20 | | | cut |
| Leather | 120 | 25 | 10 | | | cut |
| MDF - 1/8" | 120 | 25 | 20 | | | cut |
| Paper | 120 | NR | | | increase speed first / decrease power if scorching | cut |
| Rubber Stamp | 120 | 25 | 10 | | | cut |
| Wood - 3mm 1/8" | 120 | 75 | 45 | | use transfer tape to prevent scorch | cut |
| Wood - 6mm 1/4" | 120 | 75 | 20 | | use transfer tape to prevent scorch | cut |
| Wood - 9mm 3/8" | 120 | 75 | 10 | | use transfer tape to prevent scorch | cut |
| Wood - 12mm 1/2" | 120 | 75 | 5 | | use transfer tape to prevent scorch | cut |

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Recommended Engraving and Cutting Settings for 150W Laser

This is just a starting point - many different settings can be used for different effects. Scan gap is very important when engraving for depth and detail of engraving. To increase productivity, increase speed, power and adjust scan gap proportionately.

| | Watt | Power | Speed mm/sec | Scan Gap DPI | NOTES | |
|----------------------|------|-------|--------------|--------------|--|------|
| Acrylic | 150 | 20 | 400 | 0.05 | lower speed or multiple passes to increase depth | Scan |
| Anodized Aluminum | 150 | 20 | 400 | 0.07 | | Scan |
| Brick | 150 | 40 | 35 | 0.10 | engrave or cut with lens slightly out of focus to produce glass effect | Scan |
| Cardboard Matt Board | 150 | 20 | 400 | 0.10 | | Scan |
| Ceramic | 150 | 25 | 200 | 0.05 | | Scan |
| Glass | 150 | 25 | 200 | 0.05 | | Scan |
| Laserable Plastic | 150 | 20 | 600 | 0.05 | on plastics with a white core, you can run the engraving again at a low speed to clean the dust. | Scan |
| Leather | 150 | 20 | 300 | 0.10 | | Scan |
| Marble, Granite | 150 | 25 | 200 | 0.05 | | Scan |
| MDF - 1/8" | 150 | 20 | 400 | 0.10 | use transfer tape to prevent scorch | Scan |
| Mirror Back Glass | 150 | 20 | 300 | 0.10 | | Scan |
| Painted Metal | 150 | 20 | 300 | 0.10 | | Scan |
| Paper | 150 | NR | | | | Scan |
| Rubber Stamp | 150 | 20 | 300 | 0.10 | use grade engrave to achieve 3D stamp effect - set the angle | Scan |
| Sign Foam | 150 | 20 | 400 | 0.10 | | Scan |
| Wood | 150 | 25 | 200 | 0.10 | use transfer tape to prevent scorch | Scan |
| Acrylic - 3mm 1/8" | 150 | 60 | 40 | | | cut |
| Acrylic - 6mm 1/4" | 150 | 60 | 15 | | | cut |
| Acrylic - 12mm 1/2" | 150 | 60 | 5 | | | cut |
| Acrylic - 25mm 1" | 150 | 60 | 0.7 | | | cut |
| Cardboard Matt Board | 150 | NR | | | | cut |
| Laserable Plastic | 150 | 20 | 20 | | | cut |
| Leather | 150 | 20 | 10 | | | cut |
| MDF - 1/8" | 150 | 20 | 20 | | | cut |
| Paper | 150 | NR | | | increase speed first / decrease power if scorching | cut |
| Rubber Stamp | 150 | 20 | 10 | | | cut |
| Wood - 3mm 1/8" | 150 | 60 | 45 | | use transfer tape to prevent scorch | cut |
| Wood - 6mm 1/4" | 150 | 60 | 20 | | use transfer tape to prevent scorch | cut |
| Wood - 9mm 3/8" | 150 | 60 | 10 | | use transfer tape to prevent scorch | cut |
| Wood - 12mm 1/2" | 150 | 60 | 5 | | use transfer tape to prevent scorch | cut |

| Materials | Power | Speed | DPI Scan Gap | Notes |
|-----------|-------|-------|--------------|-------|
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